

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING SIGNAL FROM SPAN WIRE TO MAST ARM DESIGN AT THE INTERSECTION OF MD 450 AND RACETRACK ROAD IN PRINCE GEORGE'S COUNTY, MARYLAND.

INTERSECTION OPERATION

THERE WILL BE NO CHANGE TO THE INTERSECTION OPERATION.

A NEMA (8 PHASE) FULLY ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WITH THREE - 4 CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS SHALL BE INSTALLED AT THIS LOCATION.

THIS SIGNAL IS EQUIPED WITH EMERGENCY VEHICLE PREEMPTION UTILIZING 3M-OPTICOM FOR THE EAST BOUND MD450 APPROACH.

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

MR. CHARLIE WATKINS, DISTRICT ENGINEER
PHONE: (301) 513-7300
MR. MAJID SHAKIB, ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (301) 513-7300
MR. DENNIS McMAHAN, ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (301) 513-7300
MR. AUGIE REBISH, ASSISTANT DISTRICT ENGINEER-UTILITY
PHONE: (301) 513-7300
MR. RICHARD L. DAFF, SR., CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

2. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 104.30, 104.37-02, 104.38-02.

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9000	3 EA	21 FT. STEEL MAST ARM POLE WITH ANCHOR BOLTS AND 50 FT. MAST ARM
9002	3 EA	(CONT/CAB/ADD) DETECTOR AMPLIFIER 4-CH RACK MT
9086	1 EA	CABINET W/ TELEMETRY (SYSTEM CAB), SIZE 6
9087	1 EA	CONTROLLER ASC II W/ TELEMETRY
9090	89 SF	FLAT SHEET ALUM. SIGN-BLUE OR GREEN (SF)
		4 EA D3 - 2 (16" x VAR)
		1 EA R10 - 12 (36" x 42")
		1 EA R3 - 5R (30" x 36")
		2 EA R3 - 5L (30" x 36")
		1 EA M95 - 1 (78" x 24")

12 EA 1 3/4" x 66 Anchor bolts

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

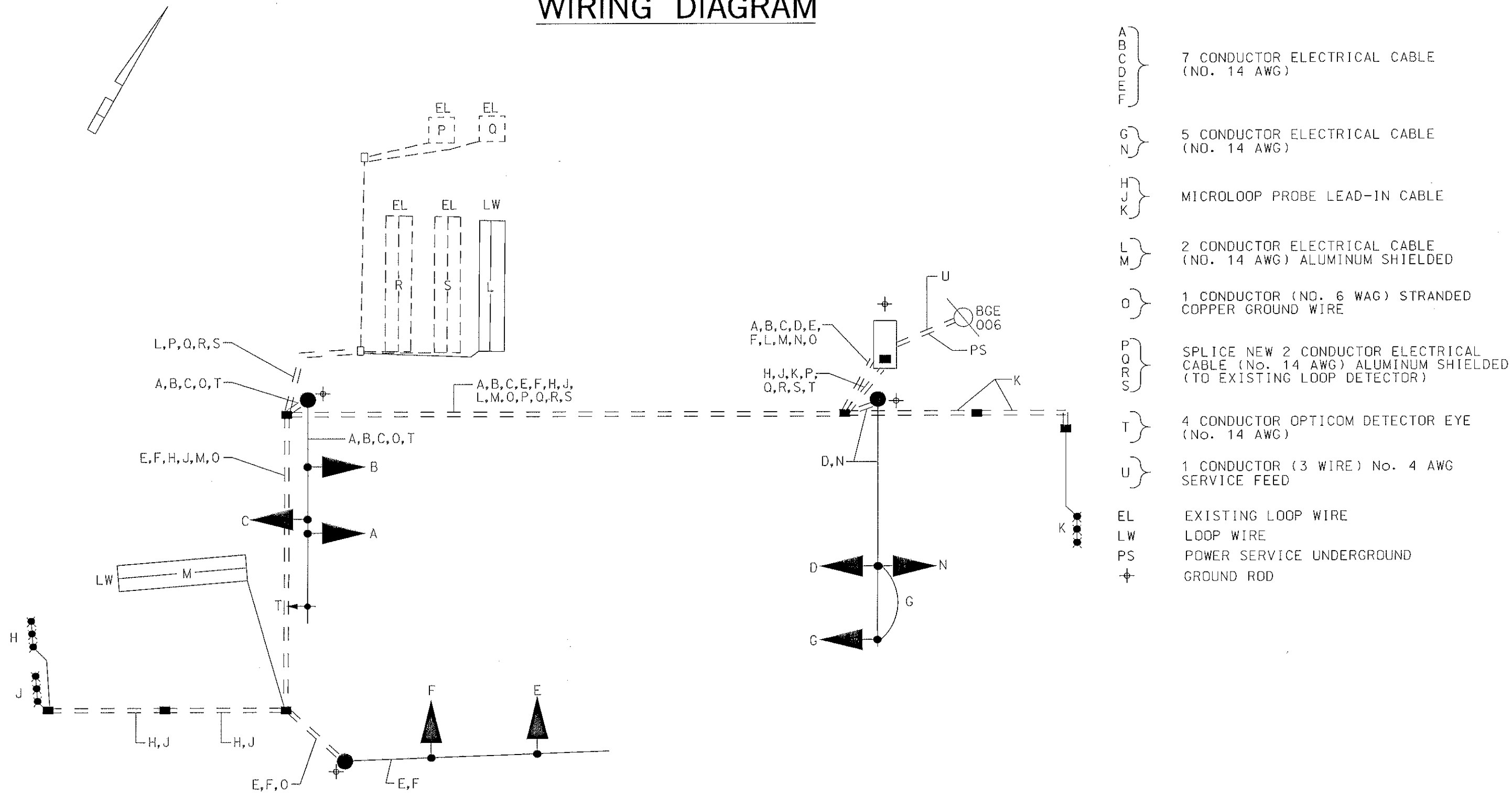
ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2001	4 CY	TEST PIT EXCAVATION
5004	120 LF	24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	8 LF	HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTER
5006	5 EA	HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROW
6001	50 SF	4 INCH CONCRETE SIDEWALK
6009	20 LF	FURNISH AND INSTALL DEPRESSED CURB AND GUTTER
8000	30 LF	TO BE NEGOTIATED - FURNISH & INSTALL SCH 80 PVC 4" - TRENCHED
8001	10 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8002	1 EA	ADJUST HANDHOLE TO GRADE
8012	1 EA	FURNISH AND INSTALL 3M OPTICOM #721 DETECTOR EYE
8014	1 EA	FURNISH AND INSTALL 3M OPTICOM #762 DISCRIMINATOR MODULE
8017	3 EA	FURNISH AND INSTALL MICROLOOP PROBE SET WITH 1000 FOOT LEAD-IN
8020	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8021	120 LF	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	20 LF	FURNISH AND INSTALL 1 INCH ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8024	640 LF	FURNISH AND INSTALL 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8027	120 LF	FURNISH AND INSTALL 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8032	300 LF	FURNISH AND INSTALL 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8033	9 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	4 EA	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8037	210 LF	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM DETECTOR CABLE
8040	1000 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8041	1300 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8044	100 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO 14 AWG)
8045	1250 LF	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO 14 AWG)
8048	300 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8049	25 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG- THHN/THWN
8053	89 SF	INSTALL OVERHEAD SIGN
8057	5 EA	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 INCH BELOW GRADE
8058	1 EA	REMOVAL OF EXISTING CONTROLLER, CABINET AND GALVANIZED SIGNAL STRUCTURE
8060	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT PER ASSIGNMENT
8066	1 EA	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT (120/240 V, 1 PHASE 3 WIRE SYSTEM)
8075	3 EA	INSTALL STEEL POLE AND TWIN MAST ARM (ANY SIZE)
8084	29 EA	FURNISH AND INSTALL 12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8085	3 EA	FURNISH AND INSTALL 8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION

C. MATERIALS TO BE REMOVED AND RETURNED TO SHA.

1. CONTROLLER AND CABINET TO BE DELIVERED TO SHA SIGNAL SHOP.

ALL OTHER EXISTING SIGNAL MATERIAL ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	8	
PHASE 1 AND 6	← GG	← GG	G	R	R	R	R	G ▶	←
1 AND 6 CHANGE	← YG	← YG	G	R	R	R	R	Y ▶	←
PHASE 2 AND 6	G	G	G	G	G	G	R	R	←
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	←
PHASE 4	R	R	R	R	R	G/G ▶	G	G/G ▶	←
4 CHANGE	R	R	R	R	R	G/Y ▶	Y	Y/Y ▶	←
FLASHING OPERATION	FL /Y	FL /Y	FL /Y	FL /Y	FL /Y	FL /Y	FL /R	FL /R	←

FIRE HOUSE PRE-EMPTION

PRE EMPTION 1	← GG	← GG	G	R	R	R	R	R	←
PRE EMPTION 1 CLEARANCE	← YG	← YG	G	R	R	R	R	R	←
PHASE 2 AND 6	G	G	G	G	G	R	R	R	←
NORMAL OPERATION	Y	Y	Y	Y	Y	R	R	R	←



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION PLAN

MD 450 AT RACETRACK ROAD



SABRA, WANG & ASSOCIATES, INC.
1506 JOH AVENUE
SUITE 180
BALTIMORE, MD 21227
WWW.SABRA-WANG.COM

DRAWN BY: JAMES ALLEN JR.
CHECKED BY: S. RENZI
SCALE: NOT TO SCALE
DATE: 1-12-74

F.A.P. NO.
S.H.A. NO.
COUNTY: PRINCE GEORGE'S
LOG MILE: 16045013.17

TS NO.
TS 1396
T.I.M.S. NO.
E 615

SHEET NO.
2 OF 2